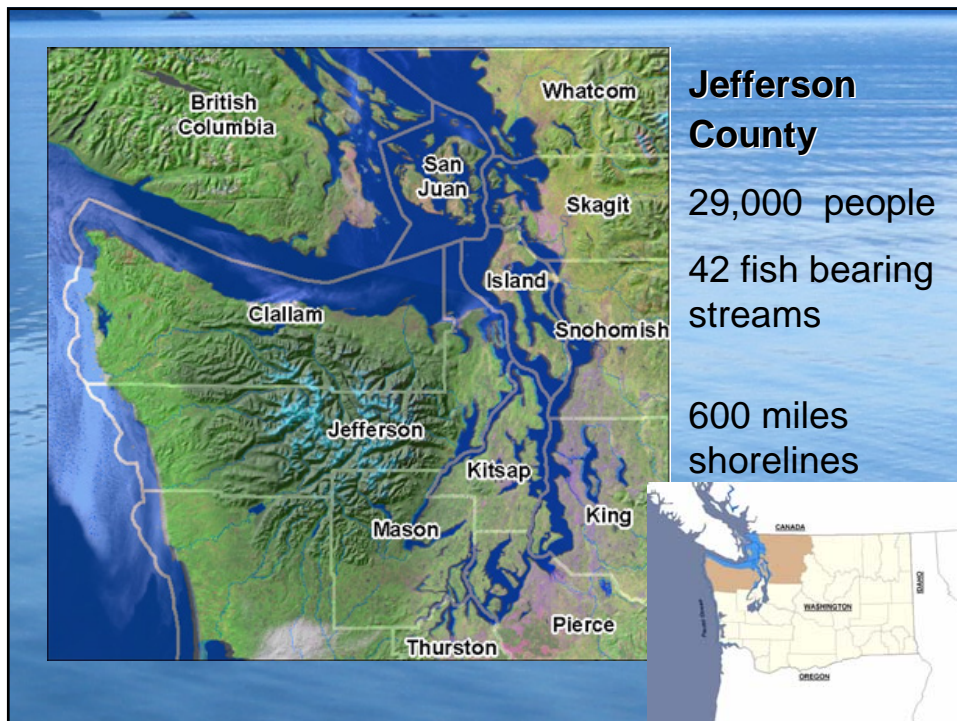
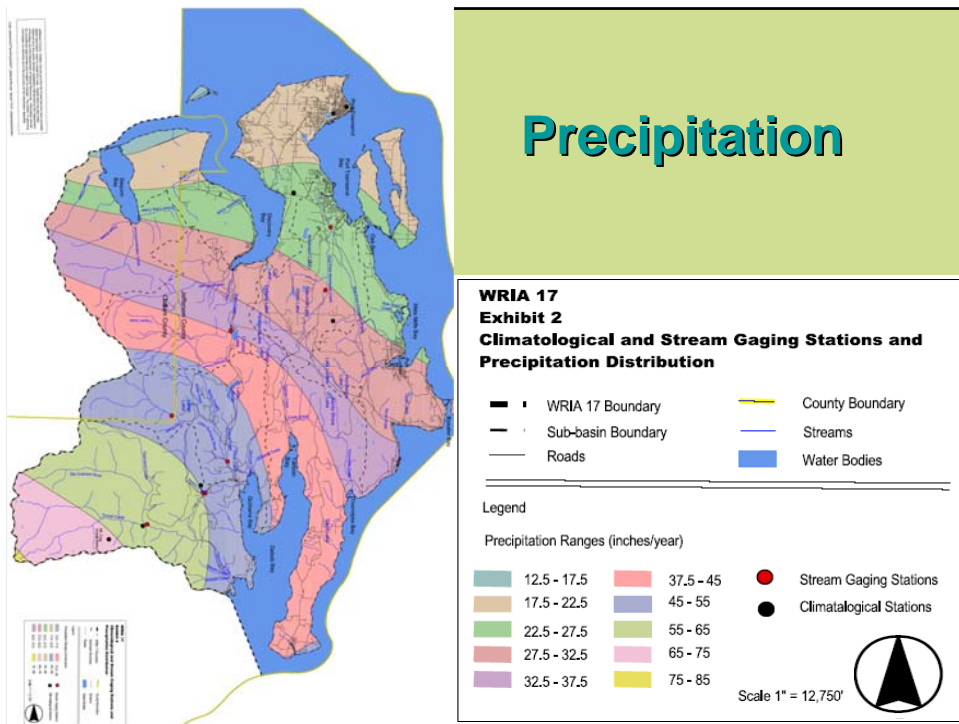


Surface Water Education in a Rural County

Pat Pearson, Washington State
University Jefferson County
Extension

National Conference for Nonpoint Source
and Stormwater Outreach May 2009





Surface Water Quality- majority of waters meet state standards



Puget Sound Partnership Priority Issues

2020 Action Agenda - Holistic Approach is Needed to Rebuild a Thriving Puget Sound Ecosystem

Protect - Restore - Control/Clean Up Pollution

Reduce Stormwater Runoff

Ensure Adequate Water

Protect Biodiversity

Build Human Capacity - Educate and Engage the Public



220 species of fish,
20 species marine mammals
100 species of sea birds
Thousands of species
marine invertebrates

Department of Ecology required the County to create a Surface Water Management Plan

Must include a Surface Water Education Plan

WSU Jefferson County Extension contracted to design the Education Plan

SURVEY

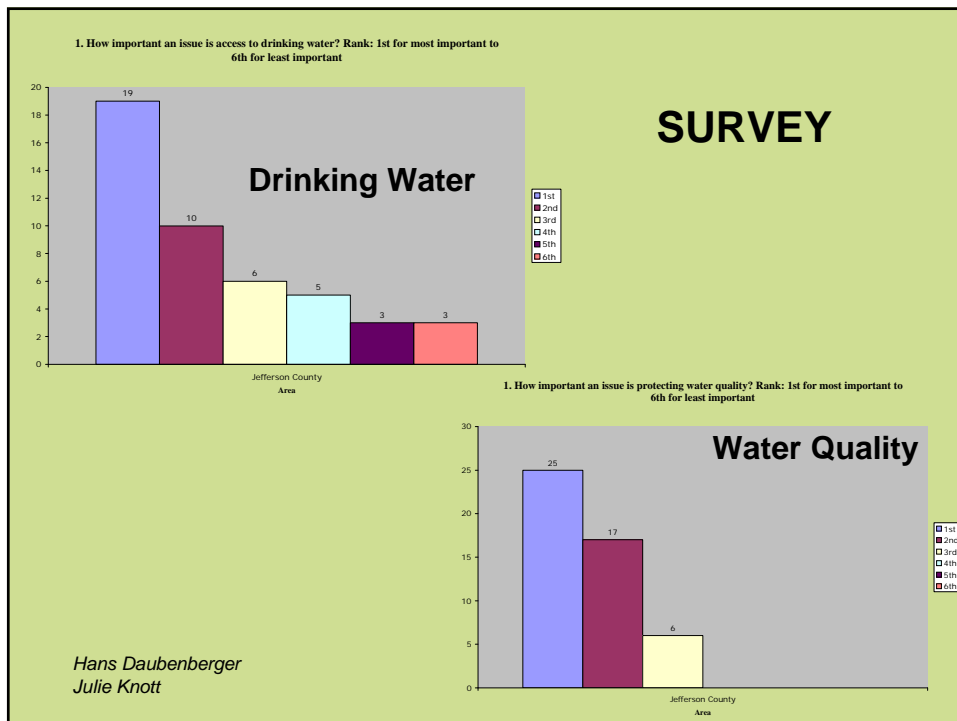
Successful surface and storm water management are critical to protecting water quality.

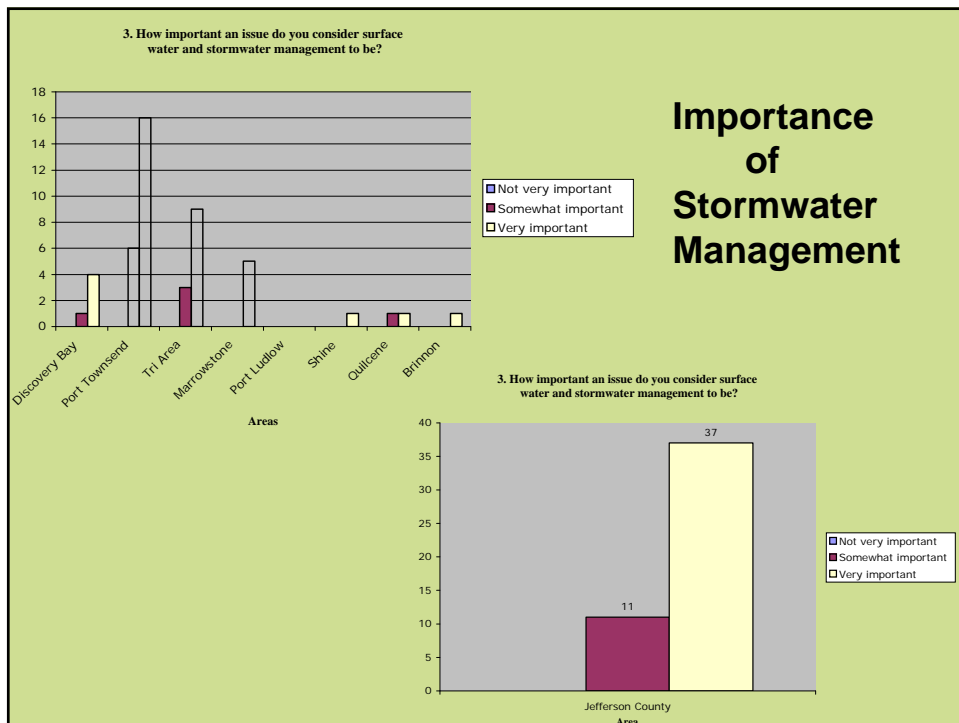
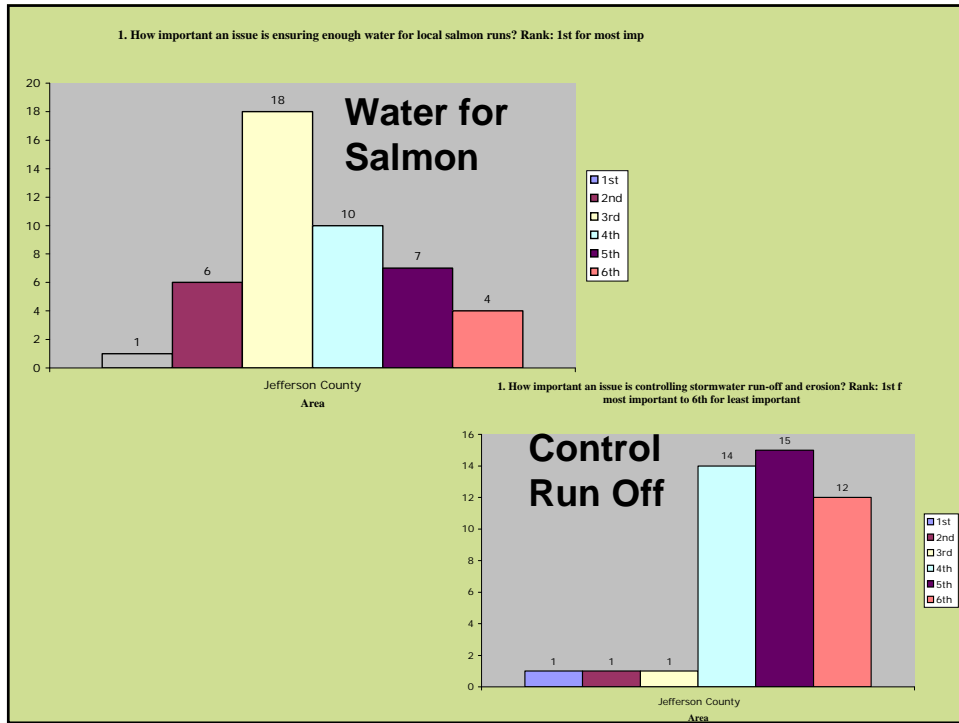
The public must understand the importance of water quality and natural processes and be willing to support activities that protect the environment.

DESIGN & IMPLEMENTATION

WSU Extension developed:

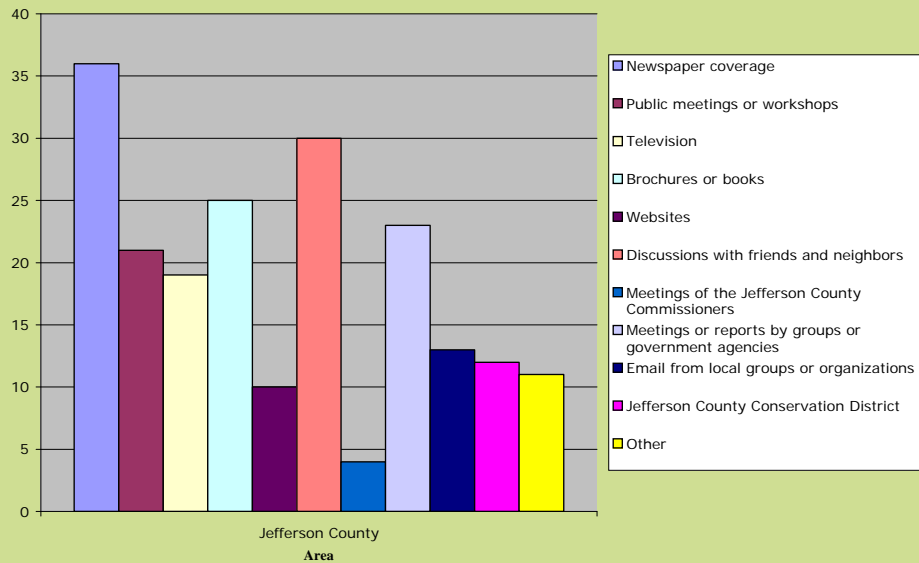
- A community survey to assess awareness & needs
- A county-wide campaign titled “Water Matters”
- Education programs to reach targeted audiences and the general public



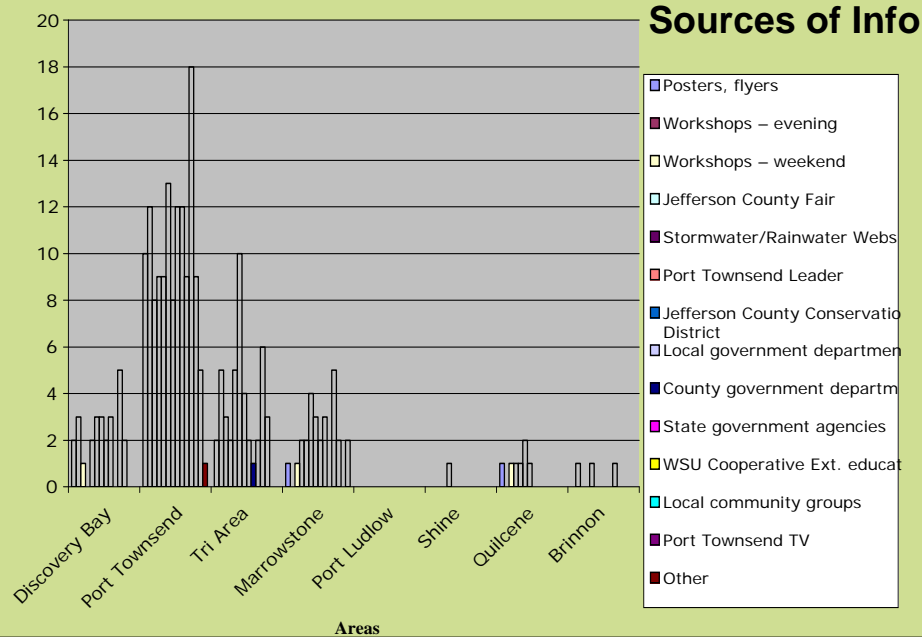


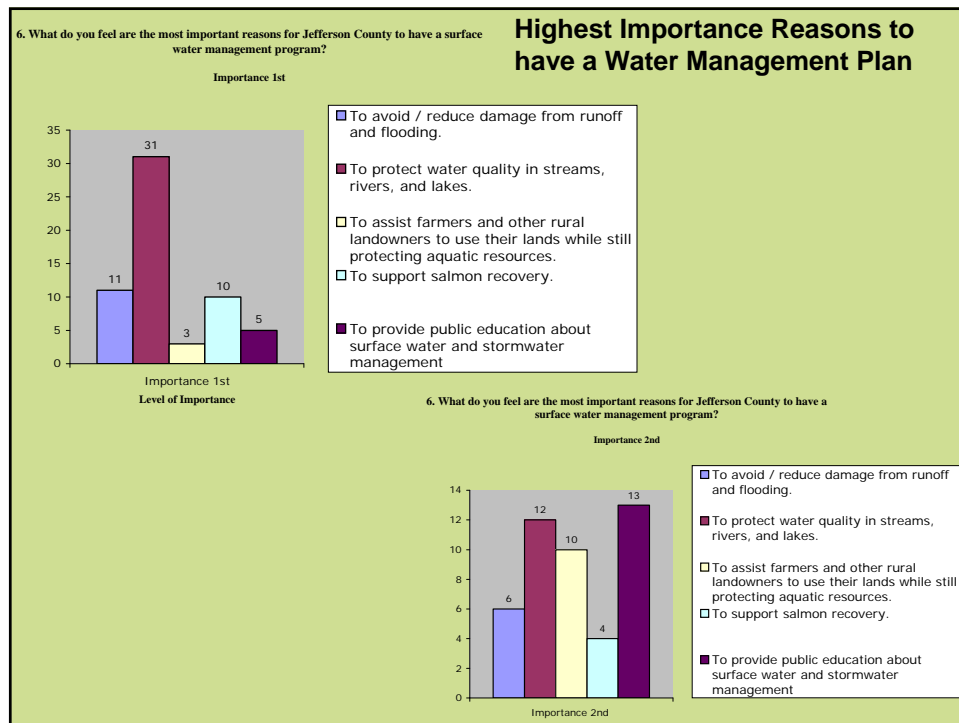
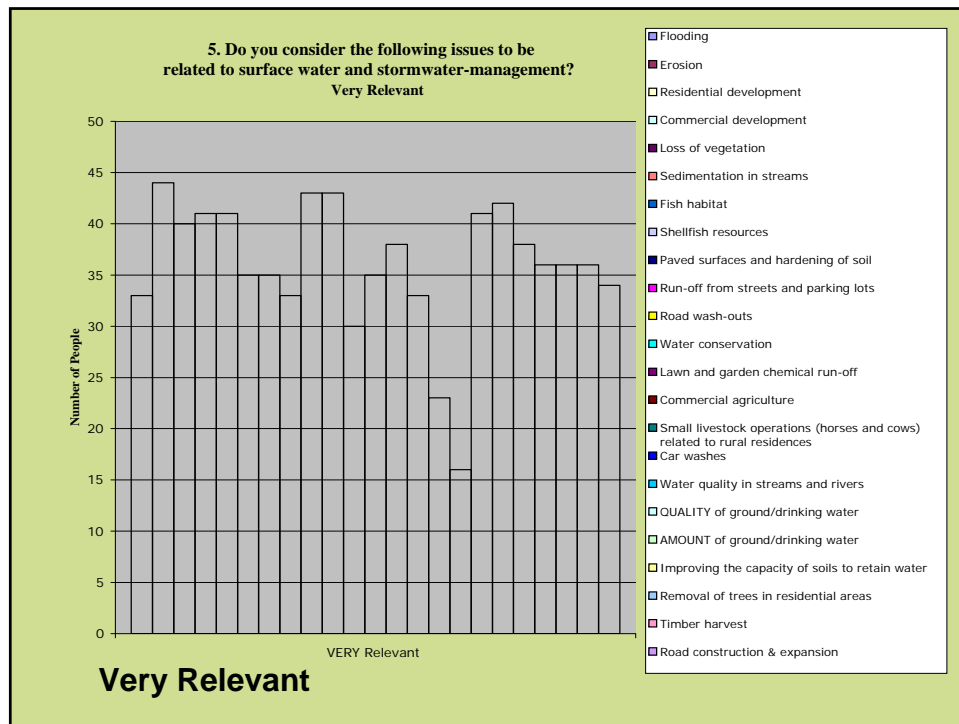
Sources of Information

4. In the past, which of these sources of information have you used for this subject?



7. Which would you use as a source of information regarding surface stormwater management?





Surface Water Education

A Jefferson County and WSU Extension Partnership

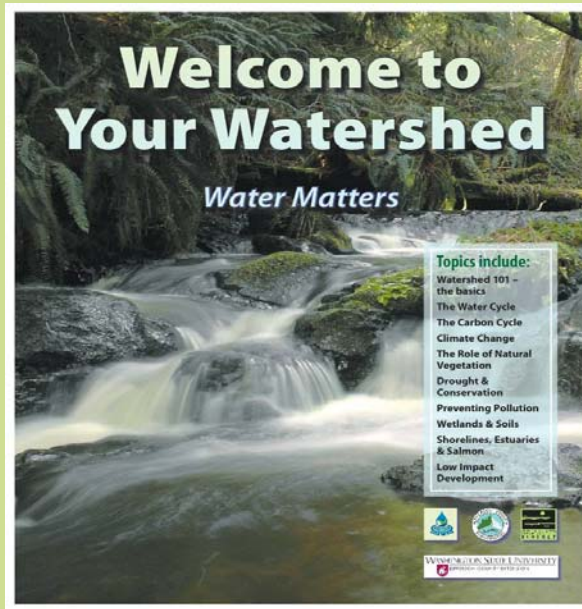


'Water Matters'
Campaign & Logo

- Education Plan
WSU contract
 - Survey
 - Identify Gaps
 - Draft Plan
 - Design
- Plan Approved by BOCC '06
- Program Implementation

Educational materials distributed to 20,000 residents

- newspaper inserts
- seminars
- libraries
- county agencies
- plant nurseries
- Stores
- community events.

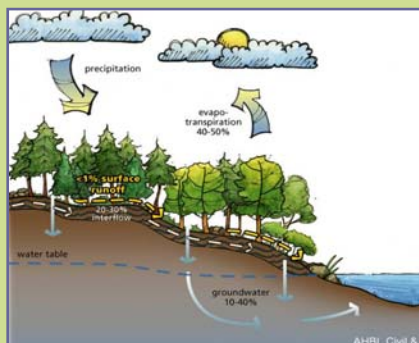




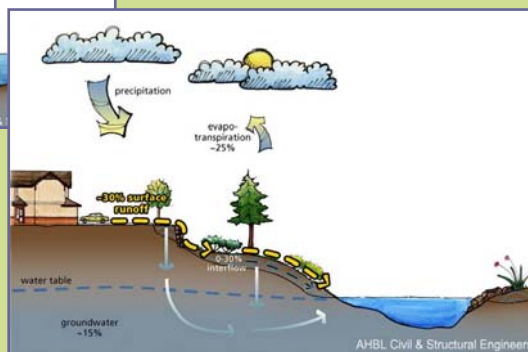
Folders

Processes, water quality, on-site septics, building issues, natural gardening, landscaping, Who can help

Watershed Hydrology BEFORE Development



- Light Forest 5% - 20%
- Lawns 25% - 80%
- Gravel Areas 80% - 90%
- Pavement/Roofs 90% +



Watershed Hydrology AFTER Development

**Welcome to Your Watershed resource folder
and a series of three newspaper inserts provided
home owners with information about:**

- * Watershed processes
- * On-site septic
- * Natural gardening and landscaping
- * 'Who Can Help' contacts
- * What residents can do to help keep their waters clean
- * Water quality
- * Building practices

WSU partners with

local realtors to distribute folders to home/property buyers

WRIA 17 Watershed Group education efforts

INCORPORATE SURFACE WATER EDUCATION INTO CURRENT WSU EXTENSION PROGRAMS

- ❖ Water/Beach Watcher trainings
- ❖ Master Gardeners
- ❖ Shore Stewards
- ❖ Community workshops
- ❖ Realtor workshops



**Partner with North Olympic Salmon Coalition and JC
Conservation District**

**Partner with Hood Canal Coordinating Council Marine
Riparian Initiative**

SHORE STEWARDS

Shoreline Landowners

Voluntary - Recognize, educate, assist

Booklet

Sign

Newsletters

Workshops

Shoreline processes, erosion, on-site septic maintenance, pesticide and fertilizer use

Site visit technical assistance; soil tests

**9 County Expansion -
1,200 participants**



24 home owner associations, community groups, and neighborhoods requested WSU technical assistance and presentations

- ❖ land clearing
- ❖ stormwater
- ❖ vegetation and planting plans to prevent erosion
- ❖ slope instability
- ❖ natural processes and watersheds
- ❖ pollution/toxics

330 residents attended educational seminars about surface water issues and practical solutions for conserving water and protecting water quality



Making a Difference.....



2007 Regional Survey Results - 8 counties

82-94% recommended the program or likely to recommend

Respondents follow the 10 guidelines 50-100% of the time, most following 90-100% of the time

Table 1. Shift in Behaviors

Scale	Before Joining	After Joining	Shift Behavior
0 - 5	32 %	2 %	- 30 %
6 -10	68 %	98 %	+ 30 %

Table 2.1 Behavior Change

% at least one slight change	% at least one major change
56%	85%

Bywater Bay Shore Stewards Evaluation

3 Workshops: Coastal Geology, Nearshore Ecology, On-site septic

Participants rated the quality of the workshop agendas excellent (87%) or good (13%) Oral presentations excellent (96%) or good (4%).

Expectations for the workshops met, 87% of respondents replied *excellent* and 17% *good*.

Concerns or questions were answered, 79% rated *excellent*, 8% *good*, and 13% no response

"GREEN GARDENING" NURSERY PROJECT

Training and materials to local nurseries

Workshops

Outreach and handouts to customers and public



SHORELINE LANDOWNERS WORKSHOPS



Watershed Resource Inventory Areas Quilcene-Snow WRIA 17

- Ecology set In-stream Flows
- Community in conflict
- WSU taking lead education role
2 educational
newspaper inserts

QuickTime™ and a
PDF (LZW) decompressor
are needed to see this picture.



Making a Difference.....

- Educational materials distributed to 20,000 residents
 - Seminars, libraries, agencies, stores, community events
- Successful ongoing partnership with local realtors
 - Distribute folders to new home and property buyers
- 24 homeowner associations, groups and neighborhoods
 - Requested and received technical assistance
 - Helped them clear land properly, reduce stormwater flow, prevent erosion and instability
- 270 Homeowners attended seminars and workshops
- Local nursery staff trained to encourage sale/use of organics and native plants
 - Customer handouts available
- 55 Master Gardeners providing ongoing information
- Invited to participate in 3 nursery special events
- Created and distributed 2 WRIA 17 educational newspapers

DEVELOPED WSU EXTENSION WEB SITE RESOURCES

World Class. Face to Face.

[CAMPUSES](#)
[WSU HOME](#)
[WSU SEARCH](#)

Jefferson County Extension

Water

home community development food & farm 4-h master gardeners **water** natural resources

[Water](#)

[WRIA 17/Instream Flow](#)

[Water Law](#)

[Water Quality Programs](#)

[Search / Sitemap](#)

WSU Links:

[WSU Main Homepage](#)

[Extension](#)

[County Extension Offices](#)

[Agricultural Research Center](#)

[CAHNRS](#)

[North Olympic Learning Center](#)

What's New?

water

Water Resources

Community-based management, planning and volunteerism

Welcome to the WSU Water homepage, where we present four major areas of importance to community members interested in water-related issues of today: WRIA 17/Instream Flow, Water Law, Critical Areas Ordinance, and Water Quality Programs. We hope that you find this site helpful and informative. Please let us know what you might wish to see added or changed to better help the public understand and become positively involved in issues related to the management and protection of our water resources.

Click here to share ideas and make comments/suggestions related to water.

WRIA17/Instream Flow

The concept of instream flow has become a hot topic these days as discussions evolve around the Best Available Science (BAS) and the balancing of water use related to humans, wildlife, and the environment. [Learn More](#)

Water Law

Water law is an interesting area of study as historical rulings

connect:

[classes & events](#)

[community forums](#)

[classified ads](#)

[Videos, blogs & podcasts](#)

upcoming events

Thu, Mar 29
Critical Areas Ordinance Subcommittee »

Thu, Apr 05
Critical Areas Ordinance Subcommittee »

Thu, Apr 12
Critical Areas Ordinance Subcommittee »

Thu, Apr 19
Critical Areas Ordinance Subcommittee »

Thu, Apr 26
Critical Areas Ordinance Subcommittee »

All Classes & Events »



Thank you

**Partners and
People who
make a difference**

Hans Daubenberger
Julie Knott
Paula Makrow, North Olympic Salmon Coalition
Cammy Mills, Shore Stewards
Jefferson County Marine Resources Committee
Jefferson County Conservation District
Hood Canal Coordinating Council, MRI Project
Jefferson County Health Department